Wisconsin's Model Academic Standards for Family and Consumer Education and National Family and Consumer Education Standards

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| A. SCIENCE                       |   |                                      |
|----------------------------------|---|--------------------------------------|
| CONNECTIONS                      | FACS State and National Education Standards   | Crosswalk of Local School Curriculum |
| Performance Standards            |   |                                      |
| By the end of Grade 12           |   |                                      |
| students will:                   | By the end of Grade 12 students will:   |                                      |
| A.12.1 Apply the underlying      | National Standards for Family and Consumer Sciences:  |                                      |
| themes of science to develop     | 3.4 Analyze resource consumption for conservation and waste management  |                                      |
| defensible visions of the future | practices, (3.4.1 – 3.4.5)  |                                      |
|                                  | 12.1 Analyze conditions that influence human growth and development across  |                                      |
|                                  | the life span, (12.1.1 – 12.1.3)  |                                      |
|                                  | 14.1 Analyze factors that influence nutrition and wellness practices across the   |                                      |
|                                  | lifespan, (14.1.1 – 14.1.5)   |                                      |
|                                  | 14.4 Evaluate factors that affect food safety from production through   |                                      |
|                                  | consumption, (14.4.1 – 14.4.6)  |                                      |
|                                  | 14.5 Evaluate the influence of science and technology on food composition,  |                                      |
|                                  | safety, and other issues, $(14.5.1 - 14.5.4)$   |                                      |
|                                  |   |                                      |
|                                  | Wisconsin's Model Academic Standards for Family and Consumer  |                                      |
|                                  | Education D.A.C. and the state of the state |                                      |
|                                  | B.4 Construct a model to show how the practical reasoning process worked in   |                                      |
| A.12.2 Show how conflicting      | a specific situation  |                                      |
| assumptions about science        | National Standards for Family and Consumer Sciences:  1.1 Analyze strategies to manage multiple roles and responsibilities  |                                      |
| themes lead to different         | (individual, family, career, community and global), (1.1.1 – 1.1.6)   |                                      |
| opinions and decisions about     | 1.2 Demonstrate transferable and employability skills in school, community,   |                                      |
| evolution, health, population,   | and workplace settings, $(1.2.1 - 1.2.8)$   |                                      |
| longevity, education, and use    | 1.3 Evaluate the reciprocal effect of individual and family participation in  |                                      |
| of resources, and show how       | community activities, (1.3.1 – 1.3.6)   |                                      |
| these opinions and decisions     | 9.3 Evaluate nutrition principles, food plans, preparation techniques and   |                                      |
| have diverse effects on an       | specialized dietary plans, 9.3.1 – 9.3.7)   |                                      |
| individual, a community, and a   | 9.4 Apply basic concepts of nutrition and nutritional therapy in a variety of   |                                      |
| country, both now and in the     | settings, (9.4.1 – 9.4.5)   |                                      |
| future                           | 14.2 Evaluate the nutritional needs of individuals and families in relation to  |                                      |
|                                  | health and wellness across the life span, 14.2.1 – 14.2.4)  |                                      |
|                                  |   |                                      |

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|                               | Wisconsin's Model Academic Standards for Family and Consumer   |  |
|-------------------------------|--|--|
|                               | Education  |  |
|                               | B. 2 Review findings with classmates at each stage of the practical reasoning                        |  |
|                               | process  |  |
| A.12.3 Give examples that     | National Standards for Family and Consumer Sciences:   |  |
| show how partial systems,     | 9.6 Demonstrate food science, dietetics, and nutrition management principles                         |  |
| models, and explanations are  | and practices, $(9.6.1 - 9.6.5)$   |  |
| used to give quick and        | 14.3 Demonstrate ability to acquire, handle, and use foods to meet nutrition                         |  |
| reasonable solutions that are | and wellness needs of individuals and families across the life span, (143.1 –                        |  |
| accurate enough for basic     | 14.3.3)  |  |
| needs                         |  |  |
|                               | Wisconsin's Model Academic Standards for Family and Consumer   |  |
|                               | Education  |  |
|                               | B.4 Construct a model to show how the practical reasoning process worked in                          |  |
|                               | a specific situation   |  |
| A.12.4 Construct arguments    | National Standards for Family and Consumer Sciences:   |  |
| that show how conflicting     | 2.2 Analyze the relationship of the environment to family and consumer                               |  |
| models and explanations of    | resources, (2.2.1 – 2.2.4) also F12.8  |  |
| events can start with similar | 2.3 Analyze policies that support consumer rights and responsibilies, (2.3. 1 –                      |  |
| evidence                      | 2.3.3)   |  |
|                               | 2.5 Analyze relationships between the economic system and consumer                                   |  |
|                               | actions, (2.5.1-2.5.4)   |  |
|                               | 9.2 Apply risk management procedures to food safety, food testing, and sanitation, $(9.2.1 - 9.2.9)$ |  |
|                               | Samtation, (9.2.1 – 9.2.9)   |  |
|                               | Wisconsin's Model Academic Standards for Family and Consumer   |  |
|                               | Education  |  |
|                               | B. 1 Apply practical reasoning to investigate a family-related concern that is                       |  |
|                               | of personal interest   |  |
|                               | B.2 Review findings with classmates at each stage of the practical-reasoning                         |  |
|                               | process  |  |
|                               | B.4 Construct a model to show how the practical reasoning process worked in                          |  |
|                               | a specific situation   |  |
| A.12.5 Show how the ideas     | National Standards for Family and Consumer Sciences:   |  |
| and themes of science can be  | 1.1 Analyze strategies to manage multiple roles and responsibilities                                 |  |

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| used to make real-life          | (individual, family, career, community and global), (1.1.1 - 1.1.6)                                    |  |
|---------------------------------|--|--|
| decisions about careers, work   | 1.2 Demonstrate transferable and employability skills in school, community,                            |  |
| places, life-styles, and use of | and workplace settings, $(1.2.1 - 1.2.8)$  |  |
| resources                       | 1.3 Evaluate the reciprocal efffect of individual and family participation in                          |  |
| lesources                       | community activities, (1.3.1 – 1.3.6)  |  |
|                                 |  |  |
|                                 | 9.1 Analyze career paths within food science, food technology, dietetics, and                          |  |
|                                 | nutrition industries, 9.1.1 – 9.1.6)   |  |
|                                 | 9.5 Demonstrate use of current technology in food product development and marketing, $(9.5.1 - 9.5.7)$ |  |
|                                 | marketing, $(9.5.1 - 9.5.7)$   |  |
|                                 | Wisconsin's Model Academic Standards for Family and Consumer   |  |
|                                 | Education  |  |
|                                 | E. 5 Show how various work-of-family concepts are related, such as self-                               |  |
|                                 | development, formation of society, continuing concerns of family, practical                            |  |
|                                 | reasoning, family action, challenge and support, and life skills                                       |  |
| A.12.6 Identify and replace     | National Standards for Family and Consumer Sciences:   |  |
| inaccurate personal models and  | 1 Evaluate reasoning for self and others, $(1.1 - 1.4)$  |  |
| explanations of science-related | 4 Implement practical reasoning for responsible action in families,                                    |  |
| phenomena using evidence        | workplaces, and communities, ((4.1-4.6)  |  |
| learned or discovered           | 8.5 Demonstrate professional food preparation methods and techniques for all                           |  |
|                                 | menu categories to produce a variety of food products that meet consumer                               |  |
|                                 | needs, (8.5.1 – 8.5.11)  |  |
|                                 | 9.2 Apply risk management procedures to food safety, food testing, and                                 |  |
|                                 | sanitation, (9.2.1 – 9.2.9)  |  |
|                                 |  |  |
|                                 | Wisconsin's Model Academic Standards for Family and Consumer   |  |
|                                 | Education  |  |
|                                 | B.4 Construct a model to show how the practical reasoning process worked in                            |  |
|                                 | a specific situation   |  |
| A.12.7 Re-examine the           | National Standards for Family and Consumer Sciences:   |  |
| evidence and reasoning that     | 1. Evaluate reasoning for self and others, $(1.1 - 1.3)$   |  |
| led to conclusions drawn from   | 2. Analyze reoccurring and evolving family, workplace, and community                                   |  |
| investigations, using the       | concerns, $(2.1 - 2.4)$  |  |
| science themes                  | 3. Analyze practical reasoning components, (3.1 – 3.6)   |  |
|                                 | 4. Implement practical reasoning for responsible action in families.                                   |  |

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|                                 | workplaces, and communities, $(4.1 - 4.14)$ 5. Demonstrate scientific inquiry and reasoning to gain factual knowledge and test theories on which to base judgments for action, $(5.1 - 5.6)$ Wisconsin's Model Academic Standards for Family and Consumer Education |                                      |
|---------------------------------|---|--------------------------------------|
|                                 | B. 2 Review findings with classmates at each stage of the practical-reasoning process   |                                      |
| B. NATURE OF SCIENCE            | FACS State and National Education Standards   | Crosswalk of Local School Curriculum |
| Performance Standards           |   |                                      |
| By the end of Grade 12          | By the end of Grade 12 students will:   |                                      |
| students will:                  |   |                                      |
| B.12.1 Show how cultures and    | National Standards for Family and Consumer Sciences:  |                                      |
| individuals have contributed to | 3 Analyze practical reasoning components, $(3.1 - 3.6)$   |                                      |
| the development of major        |   |                                      |
| ideas in the earth and space,   | Wisconsin's Model Academic Standards for Family and Consumer  |                                      |
| life and environmental, and     | Education   |                                      |
| physical sciences               | A.4 Propose a question for further investigation and give reasons to explain its importance   |                                      |
| B.12.2 Identify the cultural    | National Standards for Family and Consumer Sciences:  |                                      |
| conditions that are usually     | 3.4 Analyze resource consumption for conservation and waste management  |                                      |
| present during great periods of | practices, $(3.4.1 - 3.4.5)$  |                                      |
| discovery, scientific           |   |                                      |
| development, and invention      | Wisconsin's Model Academic Standards for Family and Consumer  |                                      |
|                                 | Education   |                                      |
|                                 | B. 1 Apply practical reasoning to investigate a family-related concern that is of personal interest   |                                      |
| B.12.3 Relate the major         | National Standards for Family and Consumer Sciences:  |                                      |
| themes of science to human      | 5. Demonstrate scientific inquiry and reasoning to gain factual knowledge and   |                                      |
| progress in understanding       | test theories on which to base judgments' for action, $(5.1 - 5.6)$   |                                      |
| science and the world           | Wisconsin's Model Academic Standards for Family and Consumer  |                                      |
|                                 | Education   |                                      |
|                                 | None  |                                      |
| B.12.4 Show how basic           | National Standards for Family and Consumer Sciences:  |                                      |
| research and applied research   | 5. Demonstrate scientific inquiry and reasoning to gain factual knowledge and   |                                      |

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| contribute to new discoveries, inventions, and applications   | test theories on which to base jusgements for action, $(5.1-5.6)$ 3.5 Demonstrate skills needed for product development, testing, and presentation, $(3.5.1-3.5.5)$ 9.5 Demonstrate use of current technology in food product development and marketing, $(9.5.1-9.5.7)$ 14.4 Evaluate factors that affect foos safety from production through consumption, $(14.4.1-14.4.6)$ Wisconsin's Model Academic Standards for Family and Consumer Education None |                                      |
|---|---|--------------------------------------|
| B.12.5 Explain how science is based on assumptions about the natural world and themes that describe the natural world   | National Standards for Family and Consumer Sciences: 5. Demonstrate scientific inquiry and reasoning to gain factual knowledge and test theories on which to base judgments for action, (5.1 – 5.6)  Wisconsin's Model Academic Standards for Family and Consumer Education None  |                                      |
| C. SCIENCE INQUIRY  | FACS State and National Education Standards   | Crosswalk of Local School Curriculum |
| Performance Standards   |   |                                      |
| By the end of Grade 12 students will:   | By the end of Grade 12 students will:   |                                      |
| C.12.1 When studying science content, ask questions suggested by current social issues, scientific literature, and observations of phenomena; build hypotheses that might | <ul> <li>National Standards for Family and Consumer Sciences:</li> <li>4. Implement practical reasoning for responsible action in families, workplaces, and communities, (4.1 – 4.6)</li> <li>5. Demonstrate scientific inquiry and reasoning to gain factual knowledge and test theories on which to base judgments for action, (5.1 – 5.6)</li> </ul>   |                                      |

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| C.12.2 Identify issues from an area of science study, write questions that could be investigated, review previous research on these questions, and design and conduct responsible and safe investigations to help answer the questions | National Standards for Family and Consumer Sciences: 5: Demonstrate scientific inquiry and reasoning to gain factual knowledge and test theories on which to base judgments for actions, (5.1 – 5.6)  Wisconsin's Model Academic Standards for Family and Consumer Education: A. 3 Investigate an existing problematic situation of ongoing concern to the family B. 1 Apply practical reasoning to investigate a family related concern that is of personal interest . |  |
|--|---|--|
| C.12.3 Evaluate the data collected during an investigation, critique the data-collection procedures and results, and suggest ways to make any needed improvements  | National Standards for Family and Consumer Sciences: None  Wisconsin's Model Academic Standards for Family and Consumer Education: B.3 Record personal reflections about what is being learned fromt the experience   |  |
| C.12.4 During investigations, choose the best data-collection procedures and materials, use them competently, and calculate the degree of precision of the resulting data  | National Standards for Family and Consumer Sciences:  9.5 Demonstrate use of current technology in food product development and marketing, (9.5.1 – 9.5.7)  Wisconsin's Model Academic Standards for Family and Consumer Education:  B. 4 Construct a model to show how the practical reasoning process worked in a specific situation  |  |
| C.12.5 Use the explanations and models found in earth and space, life and environmental, and physical sciences to develop likely explanations for the results of their investigations  C.12.6 Present the results of                   | National Standards for Family and Consumer Sciences: None  Wisconsin's Model Academic Standards for Family and Consumer Education: None  National Standards for Family and Consumer Sciences:   |  |

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| investigations to groups concerned with the issues, explaining the meaning and implications of the results, and answering questions in terms the audience can understand  | <ul> <li>5. Demonstrate scientific inquiry and reasoning to gain factual knowledge and test theories on which to base judgments for action, (5.1 – 5.6)</li> <li>Wisconsin's Model Academic Standards for Family and Consumer Education:</li> <li>B.2 Review findings with classmates at each stage of the practical reasoning process</li> <li>B.4 Construct a model to show how the practical reasoning process worked in a specific situation</li> <li>E.4 Make an organized oral presentation of project results using the appropriate props, visuals, materials &amp; equipment</li> </ul> |                                      |
|---|---|--------------------------------------|
| C.12.7 Evaluate articles and reports in the popular press, in scientific journals, on television, and on the Internet, using criteria related to accuracy, degree of error, sampling, treatment of data, and other standards of experimental design | National Standards for Family and Consumer Sciences:  1. Evaluate reasoning for self and others, (1.1 – 1.4)  5. Demonstrate scientific inquiry and reasoning to gain factual knowledge and test theories on which to base judgment for action, (5.1 – 5.6)  Wisconsin's Model Academic Standards for Family and Consumer Education:  C1: Understand and use communication to reach understanding and agreement about what to do  |                                      |
| D. PHYSICAL SCIENCE   | FACS State and National Education Standards   | Crosswalk of Local School Curriculum |
| Performance Standards  By the end of Grade 12  students will:  Structures of Atoms and Matter   | By the end of Grade 12 students will:   |                                      |
| D.12.1 Describe atomic structure and the properties of atoms, molecules, and matter during physical and chemical interactions   | National Standards for Family and Consumer Sciences: None  Wisconsin's Model Academic Standards for Family and Consumer Education: None   |                                      |

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| D.12.2 Explain the forces that hold the atom together and illustrate how nuclear interactions change the atom                                 | National Standards for Family and Consumer Sciences: None Wisconsin's Model Academic Standards for Family and Consumer   |  |
|---|--|--|
|   | Education: None  |  |
| D.12.3 Explain exchanges of energy in chemical interactions and exchange of mass and  | National Standards for Family and Consumer Sciences: None  |  |
| energy in atomic/nuclear reactions  | Wisconsin's Model Academic Standards for Family and Consumer Education: None   |  |
| <b>Chemical Reactions</b>   |  |  |
| D.12.4 Explain how substances, both simple and complex, interact with one another to produce new  | National Standards for Family and Consumer Sciences: 5.3 Demonstrate sanitation procedures for a clean and safe environment, (5.3.1 – 6.3.6)   |  |
| substances  | Wisconsin's Model Academic Standards for Family and Consumer Education: None   |  |
| D.12.5 Identify patterns in chemical and physical properties and use them to predict likely chemical and                                      | National Standards for Family and Consumer Sciences:  9.6 Demonstrate food science, dietetics, and nutrition management principles and practices, (9.6.1 – 9.6.5)  |  |
| physical changes and interactions   | Wisconsin's Model Academic Standards for Family and Consumer Education: None   |  |
| D.12.6 Through investigations, identify the types of chemical interactions, including endothermic, exothermic, oxidation, photosynthesis, and | National Standards for Family and Consumer Sciences: 8.5 Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs, (8.5.1 – 8.5.11) |  |
| acid/base reactions   | Wisconsin's Model Academic Standards for Family and Consumer Education:  |  |

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|   | None  |
|---|---|
| <b>Motions and Forces</b>   |   |
| D.12.7 Qualitatively and quantitatively analyze changes in the motion of objects and the forces that act on them and represent analytical data both algebraically and graphically | National Standards for Family and Consumer Sciences: None  Wisconsin's Model Academic Standards for Family and Consumer Education: None   |
| D.12.8 Understand the forces of gravitation, the electromagnetic force, and the intermolecular force, and explain their impact on the universal system                            | National Standards for Family and Consumer Sciences:  None  Wisconsin's Model Academic Standards for Family and Consumer Education:  None |
| D.12.9 Describe models of light, heat, and sound and through investigations describe similarities and differences in the way these energy forms behave                            | National Standards for Family and Consumer Sciences:  None  Wisconsin's Model Academic Standards for Family and Consumer Education:  None |
| Conservation of Energy and the Increase in Disorder   |   |
| D.12.10 Using the science themes, illustrate the law of conservation of energy during chemical and nuclear reactions  | National Standards for Family and Consumer Sciences: None  Wisconsin's Model Academic Standards for Family and Consumer Education: None   |
| Interactions of Matter and<br>Energy  |   |
| D.12.11 Using the science themes, explain common occurrences in the physical  | National Standards for Family and Consumer Sciences: None   |

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| Wisconsin's Model Academic Standards for Family and Consumer Education: None |  |
|--|--|
| National Standards for Family and Consumer Sciences: None                    |  |
| Wisconsin's Model Academic Standards for Family and Consumer Education: None |  |
|  |  |
| FACS State and National Education Standards                                  | Crosswalk of Local School Curriculum   |
|  |  |
| By the end of Grade 12 students will::                                       |  |
|  |  |
| National Standards for Family and Consumer Sciences:                         |  |
| None   |  |
|  |  |
| Wisconsin's Model Academic Standards for Family and Consumer                 |  |
| Education:   |  |
| None   |  |
|  |  |
|  |  |
|  |  |
| N.C. I.C. I. I. C. E. I. I.C. S.   |  |
| · ·  |  |
| None   |  |
| Wissonsin's Model Academic Standards for Family and Course                   |  |
| · · · · · · · · · · · · · · · · · · ·  |  |
|  |  |
|  | Education: None National Standards for Family and Consumer Sciences: None Wisconsin's Model Academic Standards for Family and Consumer Education: None FACS State and National Education Standards  By the end of Grade 12 students will:: National Standards for Family and Consumer Sciences: None Wisconsin's Model Academic Standards for Family and Consumer Education: |

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| The Origin and Evolution of      |   |  |
|----------------------------------|---|--|
| the Earth System                 |   |  |
| E.12.3: Using the science        | National Standards for Family and Consumer Sciences:                            |  |
| themes, describe theories of     | None  |  |
| the origins and evolution of the |   |  |
| universe and solar system,       | Wisconsin's Model Academic Standards for Family and Consumer                    |  |
| including the earth system as a  | Education:  |  |
| part of the solar system, and    | None  |  |
| relate these theories and their  |   |  |
| implications to geologic time    |   |  |
| on earth                         |   |  |
| E.12.4 Analyze the benefits,     | National Standards for Family and Consumer Sciences:                            |  |
| costs, and limitations of past,  | 4 Implement practical reasoning for responsible action in families,             |  |
| present, and projected use of    | workplaces, and communities, $(4.1 - 4.6)$                                      |  |
| resources and technology and     |   |  |
| explain the consequences to      | Wisconsin's Model Academic Standards for Family and Consumer                    |  |
| the environment                  | Education:  |  |
|                                  | D.3. Develop, implement, and assess an individual, family, or community         |  |
|                                  | action plan designed to reach specific goals, including plans for unanticipated |  |
|                                  | events, such as rain or snow on the day of scheduled outing                     |  |
|                                  | • present plans to classmates for review and use feedback in making needed      |  |
|                                  | revisions   |  |
|                                  | • review classmates plans and give fair and constructive feedback               |  |
|                                  | • collect and analyze data about results from different sources                 |  |
|                                  | write a project report including a reflective summary about what was            |  |
|                                  | learned from the action project   |  |
| The Origin and Evolution of      |   |  |
| the Universe                     |   |  |
| E.12.5 Using the science         | National Standards for Family and Consumer Sciences:                            |  |
| themes, understand that the      | None  |  |
| origin of the universe is not    |   |  |
| completely understood, but       | Wisconsin's Model Academic Standards for Family and Consumer                    |  |
| that there are current ideas in  | Education:  |  |
| science that attempt to explain  | None  |  |

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| its origin                      |   |                                      |
|---------------------------------|---|--------------------------------------|
| F. LIFE AND                     | FACS State and National Education Standards                               | Crosswalk of Local School Curriculum |
| ENVIRONMENTAL                   |   |                                      |
| SCIENCE                         |   |                                      |
| Performance Standards           |   |                                      |
| By the end of Grade 12          | By the end of Grade 12 students will:                                     |                                      |
| students will:                  |   |                                      |
| The Cell                        |   |                                      |
| F.12.1 Evaluate the normal      | National Standards for Family and Consumer Sciences:                      |                                      |
| structures and the general and  | 8.2 Demonstrate food safety and sanitation procedures, $(8.2.1 - 8.2.11)$ |                                      |
| special functions of cells in   | 9.2 Apply risk management procedures for food safety, food testing, and   |                                      |
| single-celled and multiple-     | sanitations, (9.2.1 – 9.2.9)  |                                      |
| celled organisms                | 14.4 Evaluate factors that affect food safety from production through     |                                      |
|                                 | consumption, (14.4.1 – 14.4.6)  |                                      |
|                                 |   |                                      |
|                                 | Wisconsin's Model Academic Standards for Family and Consumer              |                                      |
|                                 | Education:  |                                      |
|                                 | None  |                                      |
| F.12.2 Understand how cells     | National Standards for Family and Consumer Sciences:                      |                                      |
| differentiate and how cells are | None  |                                      |
| regulated                       |   |                                      |
|                                 | Wisconsin's Model Academic Standards for Family and Consumer              |                                      |
|                                 | Education:  |                                      |
|                                 | None  |                                      |
| The Molecular Basis of          |   |                                      |
| Heredity                        |   |                                      |
| F.12.3 Explain current          | National Standards for Family and Consumer Sciences:                      |                                      |
| scientific ideas and            | None  |                                      |
| information about the           |   |                                      |
| molecular and genetic basis of  | Wisconsin's Model Academic Standards for Family and Consumer              |                                      |
| heredity                        | Education:  |                                      |
|                                 | None  |                                      |
| F.12.4 State the relationships  | National Standards for Family and Consumer Sciences:                      |                                      |
| between functions of the cell   | None  |                                      |

Wisconsin's Model Academic Standards for Family and Consumer Education and National Family and Consumer Education Standards

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| and functions of the organism as related to genetics and heredity   | Wisconsin's Model Academic Standards for Family and Consumer Education: None  |  |
|---|---|--|
| Biological Evolution  | None  |  |
| F.12.5 Understand the theory of evolution, natural selection, and biological classification                   | National Standards for Family and Consumer Sciences: None   |  |
|   | Wisconsin's Model Academic Standards for Family and Consumer Education: None  |  |
| F.12.6 Using concepts of evolution and heredity, account for changes in species and the diversity of species, | National Standards for Family and Consumer Sciences: 14.1 Analyze factors that influence nutrition and wellness practices across the life span, (14.1.1 – 14.1.5) |  |
| including the influence of<br>these changes on science, e.g.,<br>breeding of plants or animals                | Wisconsin's Model Academic Standards for Family and Consumer Education: None  |  |
| The Interdependence of  |   |  |
| Organisms F.12.7 Investigate how organisms both cooperate and compete in ecosystems                           | National Standards for Family and Consumer Sciences: None   |  |
|   | Wisconsin's Model Academic Standards for Family and Consumer Education: None  |  |
| F.12.8 Using the science themes, infer changes in ecosystems prompted by the                                  | National Standards for Family and Consumer Sciences: None   |  |
| introduction of new species,<br>environmental conditions,<br>chemicals, and air, water, or<br>earth pollution | Wisconsin's Model Academic Standards for Family and Consumer Education: None  |  |
| Matter, Energy, and   |   |  |

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| Organization in Living          |  |                                      |
|---------------------------------|--|--------------------------------------|
| Systems                         |  |                                      |
| F.12.9 Using the science        | National Standards for Family and Consumer Sciences:                             |                                      |
| themes, investigate energy      | None   |                                      |
| systems (related to food        |  |                                      |
| chains) to show how energy is   | Wisconsin's Model Academic Standards for Family and Consumer                     |                                      |
| stored in food (plants and      | Education:   |                                      |
| animals) and how energy is      | None   |                                      |
| released by digestion and       |  |                                      |
| metabolism                      |  |                                      |
| F.12.10 Understand the          | National Standards for Family and Consumer Sciences:                             |                                      |
| impact of energy on organisms   | 14.1 Analyze factors that influence nutrition and wellness practices across life |                                      |
| in living systems               | span, (14.1.1 – 14.1.5)  |                                      |
|                                 |  |                                      |
|                                 | Wisconsin's Model Academic Standards for Family and Consumer                     |                                      |
|                                 | Education:   |                                      |
|                                 | None   |                                      |
|                                 |  |                                      |
| F.12.11 Investigate how the     | National Standards for Family and Consumer Sciences:                             |                                      |
| complexity and organization of  | None   |                                      |
| organisms accommodates the      |  |                                      |
| need for obtaining,             | Wisconsin's Model Academic Standards for Family and Consumer                     |                                      |
| transforming, transporting,     | Education:   |                                      |
| releasing, and eliminating the  | None   |                                      |
| matter and energy used to       |  |                                      |
| sustain an organism             |  |                                      |
| The Behavior of Organisms       |  |                                      |
| F.12.12 Trace how the sensory   | National Standards for Family and Consumer Sciences:                             |                                      |
| and nervous systems of various  | None   |                                      |
| organisms react to the internal |  |                                      |
| and external environment and    | Wisconsin's Model Academic Standards for Family and Consumer                     |                                      |
| transmit survival or learning   | Education:   |                                      |
| stimuli to cause changes in     | None   |                                      |
| behavior or responses           |  |                                      |
| G. SCIENCE                      | FACS State and National Education Standards                                      | Crosswalk of Local School Curriculum |

Wisconsin's Model Academic Standards for Family and Consumer Education and National Family and Consumer Education Standards

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| APPLICATIONS  |  |  |
|---|--|--|
| Performance Standards   |  |  |
| By the end of Grade 12  | By the end of Grade 12 students will:  |  |
| students will:  |  |  |
| G.12.1 Identify personal interests in science and technology; account for implications that these interests might have for future education, and options to be considered           | National Standards for Family and Consumer Sciences:  1.1 Analyze strategies to manage multiple roles and responsibilities (individual, family, career, community, and global), (1.1.1 – 1.1.6)  1.2 Demonstrate transferable and employability skills in school, community, and workplace settings, 1.2.1 – 1.2.8)  1.3 Evaluate the reciprocal effects of individual and family participation in community activites, (1.3.1 – 1.3.6)  8.1 Analyze career paths within the food production and food services industries, (8.1.1 – 8.1.6)  9.1 Analyze careers paths within food science, food technology, dietetics, and nutrition industries, (9.1.1 – 9.1.6) |  |
|   | Wisconsin's Model Academic Standards for Family and Consumer Education:  F.2 Demonstrate the ability to set learning goals F.4 Demonstrate the ability to use self-evaluation skills   |  |
| G.12.2 Design, build, evaluate, and revise models and explanations related to the earth and space, life and environmental, and physical sciences                                    | National Standards for Family and Consumer Sciences:  1 Evaluate reasoning for self and others, (1.1 – 1.1.6)  Wisconsin's Model Academic Standards for Family and Consumer Education:  B.4 Construct a model to show how the practical reasoning process worked in a specific situation.  |  |
| G.12.3 Analyze the costs,<br>benefits, or problems resulting<br>from a scientific or<br>technological innovation,<br>including implications for the<br>individual and the community | National Standards for Family and Consumer Sciences:  2 Analyze recurring and evolving family, workplace, and community concerns, (2.1 – 2.4)  3 Analyze Practical reasoning components, (3.1 – 3.6)  4 Implement practical reasoning for responsible action in families, workplaces, and communities, (4.1 – 4.6)  14.5 Evaluate the influence of science and technology on food composition,   |  |

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|  | safety, and other issues, (14.5.1 – 14.5.4)   |  |
|--|---|--|
|  | Wisconsin's Model Academic Standards for Family and Consumer Education:  C.3 Understand and apply technology information, methods, and tools.  D.3 Develop, implement, and assess an individual, family, or community action plan designed to reach specific goals, summarize results, and describe what was learned from the experience.   |  |
| G.12.4 Show how a major scientific or technological change has had an impact on work, leisure, or the home                                       | National Standards for Family and Consumer Sciences:  2.1 Analyze recurring and evolving family, workplace, and community concerns, (2.1 – 2.4)  9.5 Demonstrate use of current technology in food product development and marketing, (9.5.1 – 9.5.7)  14.5 Evaluate the influence of science and technology on food composition, safety, and other issues, (14.5.1 – 14.5.4)   |  |
|  | Wisconsin's Model Academic Standards for Family and Consumer Education:  A.2 Analyze the personal and social significance of a family-related concern.  C.3 Understand and apply technology information, methods, and tools.  D.3 Develop, implement, and assess an individual, family, or community action plan designed to reach specific goals, summarize results, and describe what was learned from the experience.  |  |
| G.12.5 Choose a specific problem in our society, identify alternative scientific or technological solutions to that problem and argue its merits | <ul> <li>National Standards for Family and Consumer Sciences:</li> <li>2. Analyze recurring and evolving family, workplace, and community concerns, (2.1 – 2.4)</li> <li>3. Analyze Practical reasoning components, (3.1 – 3.6)</li> <li>4. Implement practical reasoning for responsible action in families, workplaces, and communities (4.1 – 4.6)</li> <li>5. Demonstrate scientific inquiry and reasoning to gain factual knowledge and test theories on which to base judgements for action, (5. 1. 5.6)</li> <li>9.4 Apply basic concepts of nutrition and nutritional therapy in a variey of settings, (9.4.1 – 9.4.6)</li> <li>14.2 Evaluate the nutritional needs of individuals and families in relation to</li> </ul> |  |

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|   | health and wellness acroxx the life span, (14.2.1 – 14.2.4)  |                                      |
|---|--|--------------------------------------|
|   | Wisconsin's Model Academic Standards for Family and Consumer Education:  B.1 Apply practical reasoning to investigate a family-related concern that is of personal interest.  B.4 Construct a model to show how the practical reasoning process worked in a specific situation.  D.2 Describe a specific family-related conern in the classroom, school, or neighborhood.  D.3Develop, implement, and assess and individual, family, or community action plan designed to reach specific |                                      |
| H. SCIENCE IN SOCIAL                          |  |                                      |
| AND PERSONAL                                  | FACS State and National Education Standards  | Crosswalk of Local School Curriculum |
| PERSPECTIVES  Payfayyyaya a Standayda         |  |                                      |
| Performance Standards  By the end of Grade 12 | By the end of Grade 12 students will::   |                                      |
| students will:                                | By the end of Grade 12 students with:  |                                      |
| H.12.1 Using the science                      | National Standards for Family and Consumer Sciences  |                                      |
| themes and knowledge of the                   | National Standards for Family and Consumer Sciences:   |                                      |
| earth and space, life and                     | 3.4 Analyze resource consumption for conservation and waste management practices, $(3.4.1 - 3.4.5)$  |                                      |
| environmental, and physical                   | practices, (3.4.1 – 3.4.3)   |                                      |
| sciences, analyze the costs,                  | Wisconsin's Model Academic Standards for Family and Consumer   |                                      |
| risks, benefits, and                          | Education:   |                                      |
| consequences of a proposal                    | A.1 Demonstrate the significance of the family in meeting family members'  |                                      |
| concerning resource                           | physical needs for food, shelter, and economic resources: nurturing the  |                                      |
| management in the community                   | development of all family members throughout life; and taking action to  |                                      |
| and determine the potential                   | improve conditions in the home, neighborhood, community, and world)  |                                      |
| impact of the proposal on life                |  |                                      |
| in the community and the                      |  |                                      |
| region  |  |                                      |
| H.12.2 Evaluate proposed                      | National Standards for Family and Consumer Sciences:   |                                      |
| policy recommendations                        | 14.4 Evaluate factors that affect food safety from production to consumption,  |                                      |
| (local, state, and/or national) in            | (14.4.1 – 14.4.6)  |                                      |
| science and technology for                    | 14.5 Evaluate the influence of science and technology on food composition,   |                                      |

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| validity, evidence, reasoning, and implications, both short  | safety, and other issues, (14.5.1 – 14.5.4)  |  |
|--|--|--|
| and long term  | Wisconsin's Model Academic Standards for Family and Consumer Education:  None  |  |
| H.12.3 Show how policy decisions in science depend on many factors, including social values, ethics, beliefs, and time-frames, and considerations of science and technology  | National Standards for Family and Consumer Sciences:  14.4 Evaluate factors that affect food safety from production through consumption, (14.4.1 – 14.4.6)  Wisconsin's Model Academic Standards for Family and Consumer Education:  A.2 Analyze the personal and social significance of a family-related concern (especially in the context of a food science course)  make informed choices about consumer practices and products direct thee future and respond to technology and technological processes |  |
| H.12.4 Advocate a solution or combination of solutions to a problem in science or technology   | National Standards for Family and Consumer Sciences:  9.3 Evaluate nutrition principles, food plans, preparation techniques and specialized dietary plans, (9.3.1 – 9.3.7)  9.5 Demonstrate use of current technology in food product development and marketing, (9.5.1 – 9.5.7)  9.6 Demonstrate food science, dietetics, and nutrition management principles and practices, (9.6.1 – 9.6.9)  Wisconsin's Model Academic Standards for Family and Consumer Education: None                                  |  |
| H.12.5 Investigate how current plans or proposals concerning resource management, scientific knowledge, or technological development will have an impact on the environment, ecology, and quality of life in a community | National Standards for Family and Consumer Sciences: 3.4 Analyze resource consumption for conservation and waste management practices, (3.4.1 – 3.4.5) 2.2 Analyze the relationship of the environment to family and consumer resources, 2.2.1 – 2.2.4) 2.3 Analyze policies that support consumer rights and responsibilities, (2.3.1 – 2.3.3)  |  |

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| or region                        |  |  |
|----------------------------------|--|--|
|                                  | Wisconsin's Model Academic Standards for Family and Consumer                     |  |
|                                  | Education:   |  |
|                                  | None   |  |
| H.12.6 Evaluate data and         | National Standards for Family and Consumer Sciences:                             |  |
| sources of information when      | 9.3 Evaluate nutrition principles, food plans, preparation techniques and        |  |
| using scientific information to  | specialized dietary plans, (9.3.1 – 9.3.7)                                       |  |
| make decisions.                  | 14.1 Analyze factors that influence nutrition and wellness practices across the  |  |
|                                  | life span, (14.1.1 – 14.1.5)   |  |
|                                  | 14.2 Evaluate the nutritional needs of individuals and families in relation to   |  |
|                                  | health and wellness across the life span, $(14.2.1 - 14.2.4)$                    |  |
|                                  | 14.4 Evaluate factors that affect food safety from production through            |  |
|                                  | consumption, (14.4.1 – 14.4.6)   |  |
|                                  | 14.5 Evaluate the influence of science and technology on food composition,       |  |
|                                  | safety, and other issues, $(14,5,1-14.5.4)$                                      |  |
|                                  | Wisconsin's Model Academic Standards for Family and Consumer                     |  |
|                                  | Education:   |  |
|                                  | A.3 Investigate an existing problematic situation of ongoing concern to the      |  |
|                                  | family,  |  |
| H.12.7 When making               | National Standards for Family and Consumer Sciences                              |  |
| decisions, construct a plan that | 5 Demonstrate scientific inquiry and reasoning to gain factual knowledge and     |  |
| includes the use of current      | test theories on which to base judgments for action $(5.1 - 5.6)$                |  |
| scientific knowledge and         | 9.3 Evaluate nutrition principles, food plans, preparation techniques and        |  |
| scientific reasoning.            | specialized dietary plans, (9.3.1 – 9.3.7)                                       |  |
|                                  | 9.4 Apply basic concepts of nutrition and nutritional therapy in a variety of    |  |
|                                  | settings, (9.4.1 – 9.4.6)  |  |
|                                  | 9.6 Demonstrate food science, dietetics, and nutrition management principles     |  |
|                                  | and practices, (9.6.1 -9.6.9)  |  |
|                                  | Wisconsin's Model Academic Standards for Family and Consumer                     |  |
|                                  | Education:   |  |
|                                  | B.1 Apply practical reasoning to investigate a family-related concern that is of |  |
|                                  | personal interest  |  |
|                                  | B.4 Construct a model to show how the practical reasoning process worked in      |  |

# Crosswalk Between: Wisconsin's Model Academic Standards for Science and Wisconsin's Model Academic Standards for Family and Consumer Education and National Family and Consumer Education Standards The state standards can be downloaded at <a href="http://www.dpi.wi.gov/standards/pdf/face.pdf">http://www.dpi.wi.gov/standards/pdf/face.pdf</a> and the national standards are found at <a href="http://www.aafcs.org/FCSstandards/">http://www.aafcs.org/FCSstandards/</a>

| a specific situation C.3 Understand and apply technological information, methods, and tools |  |
|---|--|
| D.3 Develop, implement, and assess an individual, family, or community                      |  |
| action plan designed to reach specific goals  |  |